

Supplementary Table 2. Records of votes

Session I. Local treatment

(1) Positive sentinel node in primary breast cancer

Q1-1. When considering sentinel biopsy alone without specific axillary treatment in patient with clinically node negative, early-breast cancer, can you omit axillary node dissection if the patients undergo breast conserving surgery and the sentinel node(s) show micrometastatic disease only.

- 1. Yes 93.9%
- 2. No 6.1%
- 3. Abstain 0%

Q1-2. When considering sentinel biopsy without axillary node dissection in patient with early breast cancer showing clinically negative axillary node, you can omit axillary node dissection if the patients will undergo modified radical mastectomy and sentinel node(s) show micrometastatic disease only.

- 1. Yes 79.4%
- 2. No 20.6%
- 3. Abstain 0%

Q1-3. When macrometastasis is found in two sentinel nodes or less in performing breast conserving surgery and sentinel lymph node biopsy for T1 or T2 early breast cancer clinically without lymph node metastasis, you can omit additional axillary lymph node dissection if the patients were given no preoperative anticancer chemotherapy and are expected to undergo standard radiotherapy and systemic therapy.

- 1. Yes 62.5%
- 2. No 34.4%
- 3. Abstain 3.1%

Q1-4. When macrometastasis is found in sentinel lymph nodes in performing breast conserving surgery, mastectomy, or sentinel lymph node biopsy for T1 or T2 early breast cancer clinically without lymph node metastasis, you can replace additional axillary lymph node dissection by radiotherapy in the axilla.

- 1. Yes 57.6%
- 2. No 36.4%
- 3. Abstain 6.1%

(2) Sentinel node after neoadjuvant

Q1-5. When planning preoperative systemic anticancer therapy, you need to obtain information about ER, PR, HER2, etc. from the tumor tissues before starting anticancer treatment.

- 1. Yes 100%
- 2. No 0%
- 3. Abstain 0%

Q1-6. When complete response (CR) has been observed in lymph nodes clinically in performing preoperative systemic anticancer therapy for axillary lymph node metastasis found clinically or by biopsy, you can use sentinel lymph node biopsy during surgery (irrespective of the findings for the estrogen receptor or HER2).

- 1. Yes 85.7%
- 2. No 11.4%
- 3. Abstain 2.9%

Q1-7. When partial response (PR) has been observed in lymph nodes clinically in performing preoperative systemic anticancer therapy for axillary lymph node metastasis found clinically or by biopsy, you can use sentinel lymph node biopsy during surgery in consideration of the findings for the estrogen receptor or HER2.

- 1. Yes 54.3%

- 2. No 45.7%
- 3. Abstain 0%

Q1-8. When CR has been observed in lymph nodes clinically in performing preoperative systemic anticancer therapy for axillary lymph node metastasis found clinically or by biopsy, you can omit axillary lymph node dissection if no macrometastasis is found by sentinel lymph node biopsy during surgery.

- 1. Yes 71.4%
- 2. No 22.9%
- 3. Abstain 5.7%

Q1-9. When PR has been observed in lymph nodes clinically in performing preoperative systemic anticancer therapy for axillary lymph node metastasis found clinically or by biopsy, you can omit axillary lymph node dissection if no macrometastasis is found by sentinel lymph node biopsy during surgery.

- 1. Yes 27.3%
- 2. No 66.7%
- 3. Abstain 6.1%

(3) Less benefit from RT after surgery

Q1-10. There is a subgroup not requiring radiotherapy among DCIS patients

- 1. Yes 91.2%
- 2. No 8.8%
- 3. Abstain 0%

Q1-11. Radiotherapy can be omitted when DCIS meets all the criteria in the fifth KBCS recommendations (≥ 45 years, low grade, < 1 cm tumor, resection margin [-], necrosis [-]).

- 1. Yes 75.8%
- 2. No 24.2%
- 3. Abstain 0%

Q1-12. Radiotherapy can be omitted when DCIS meets all the "low risk" criteria in the NCCN guidelines (≥ 50 years, low/intermediate grade, size, resection margin).

- 1. Yes 73.5%
- 2. No 26.5%
- 3. Abstain 0%

Q1-13. It is necessary to supplement the KBCS recommendations and the NCCN guidelines, which allow omission of radiotherapy for DCIS, for example, by including the estrogen receptor.

- 1. Yes 73.5%
- 2. No 23.5%
- 3. Abstain 2.9%

Q1-14. Do you think there is a subgroup not requiring radiotherapy for invasive breast cancer?

- 1. Yes 55.9%
- 2. No 44.1%
- 3. Abstain 0%

Q1-15. Radiotherapy can be omitted when invasive breast cancer meets the CALGB 9343 & PRIME II criteria (≥ 70 years, T1, ER+, grade 1 or 2, resection margin [-]).

- 1. Yes 67.7%
- 2. No 32.4%
- 3. Abstain 0%

Q1-16. It is necessary to supplement the CALGB 9343 & PRIME II criteria

(≥ 70 years, T1, ER+, grade 1 or 2, resection margin [-]), which allow omission of radiotherapy for invasive breast cancer, for example, with Luminal A/B, HER2 (herceptin use), or Low RS.

- | | |
|------------|-------|
| 1. Yes | 76.5% |
| 2. No | 20.6% |
| 3. Abstain | 2.9% |

Session II. Systemic treatment

(1) Reality of anti-HER2 therapy in Korea

Q 2-1-1. Is "trastuzumab+taxane" your preferential regimen for patients with HER2+, HR- MBC as first-line regimen? (initial stage IV) (in real world)

- | | |
|------------|-------|
| 1. Yes | 93.6% |
| 2. No | 6.5% |
| 3. Abstain | 0% |

Q 2-1-2. Is "trastuzumab+docetaxel+pertuzumab" your preferential regimen for patients with HER2+, HR- MBC as first-line regimen? (initial stage IV) (no restrictions)

- | | |
|------------|-------|
| 1. Yes | 90.9% |
| 2. No | 9.1% |
| 3. Abstain | 0% |

Q2-2-1. The patient was treated with trastuzumab plus docetaxel regimen. After response of 12 months, her disease was progressed. Still PS 0 and no cardiac problem. Is anthracycline-containing regimen your choice as second-line regimen? (in real world)

- | | |
|------------|-------|
| 1. Yes | 83.9% |
| 2. No | 12.9% |
| 3. Abstain | 3.2% |

Q2-2-2. The patient was treated with trastuzumab plus docetaxel regimen. After response of 12 months, her disease was progressed. Still PS 0 and no cardiac problem. Is T-DM1 your choice as second-line regimen? (no restrictions)

- | | |
|------------|------|
| 1. Yes | 100% |
| 2. No | 0% |
| 3. Abstain | 0% |

Q2-2-3. The patient was treated with trastuzumab plus docetaxel regimen. After response of 12 months, her disease was progressed. Still PS 0 and no cardiac problem. Is lapatinib plus capecitabine your choice as second-line regimen? (no restrictions)

- | | |
|------------|-------|
| 1. Yes | 53.1% |
| 2. No | 43.8% |
| 3. Abstain | 3.1% |

Q2-2-4. The patient was treated with trastuzumab plus docetaxel regimen. After response of 12 months, her disease was progressed. Still PS 0 and no cardiac problem. Is trastuzumab plus vinorelbine your choice as second-line regimen? (no restrictions)

- | | |
|------------|-------|
| 1. Yes | 74.2% |
| 2. No | 25.8% |
| 3. Abstain | 0% |

Q2-3-1. The patient was treated with first line trastuzumab+docetaxel and second line AC. After 6 cycles of AC with PR, she could have 6 months of chemo-free period. Then, progression was documented. PS 0 and no cardiac problem. Is lapatinib plus capecitabine your next therapeutic option as third-line regimen? (in real world)

- | | |
|--------|-------|
| 1. Yes | 96.8% |
| 2. No | 0% |

- | | |
|------------|------|
| 3. Abstain | 3.2% |
|------------|------|

Q2-3-2. The patient was treated with first line trastuzumab+docetaxel and second line AC. After 6 cycles of AC with PR, she could have 6 months of chemo-free period. Then, progression was documented. PS 0 and no cardiac problem. Is T-DM1 your next therapeutic option as third-line regimen? (no restrictions)

- | | |
|------------|------|
| 1. Yes | 100% |
| 2. No | 0% |
| 3. Abstain | 0% |

Q2-3-3. The patient was treated with first line trastuzumab+docetaxel and second line AC. After 6 cycles of AC with PR, she could have 6 months of chemo-free period. Then, progression was documented. PS 0 and no cardiac problem. Is trastuzumab plus capecitabine your next therapeutic option as third-line regimen? (no restrictions)

- | | |
|------------|-----|
| 1. Yes | 90% |
| 2. No | 10% |
| 3. Abstain | 0% |

Q2-3-4. The patient was treated with first line trastuzumab+docetaxel and second line AC. After 6 cycles of AC with PR, she could have 6 months of chemo-free period. Then, progression was documented. PS 0 and no cardiac problem. Is trastuzumab plus lapatinib your next therapeutic option as third-line regimen? (no restrictions)

Systemic therapy in luminal type A

- | | |
|------------|-------|
| 1. Yes | 76.7% |
| 2. No | 20% |
| 3. Abstain | 3.3% |

Q2-4-1. The patient was treated with first line trastuzumab+docetaxel, second line AC and third line lapatinib+capecitabine. After 8.4 months of third line therapy, progression was documented. PS 1 and no cardiac problem. Is T-DM1 your next therapeutic option as salvage regimen? (no restrictions)

- | | |
|------------|------|
| 1. Yes | 100% |
| 2. No | 0% |
| 3. Abstain | 0% |

Q2-4-2. The patient was treated with first line trastuzumab+docetaxel, second line AC and third line lapatinib+capecitabine. After 8.4 months of third line therapy, progression was documented. PS 1 and no cardiac problem. Is trastuzumab+other cytotoxic agent your next therapeutic option as salvage regimen? (no restrictions)

- | | |
|------------|-------|
| 1. Yes | 96.8% |
| 2. No | 3.2% |
| 3. Abstain | 0% |

Q2-5-1. Is it necessary to use trastuzumab for HER2 positive breast cancer patients who require neoadjuvant systemic therapy?

- | | |
|------------|-------|
| 1. Yes | 97.0% |
| 2. No | 3% |
| 3. Abstain | 0% |

Q2-5-2. When trastuzumab is used for HER2 positive breast cancer patients who require neoadjuvant systemic therapy, will you use the following method?

AC – docetaxel + trastuzumab

- | | |
|------------|-------|
| 1. Yes | 9.7% |
| 2. No | 90.3% |
| 3. Abstain | 0% |

Q2-5-3. When trastuzumab is used for HER2 positive breast cancer patients who require neoadjuvant systemic therapy, will you use the following method?

AC – paclitaxel + trastuzumab

- 1. Yes 96.9%
- 2. No 3.1%
- 3. Abstain 0%

Q2-5-4. When trastuzumab is used for HER2 positive breast cancer patients who require neoadjuvant systemic therapy, will you use the following method?

AC – docetaxel + trastuzumab

- 1. Yes 100%
- 2. No 0%
- 3. Abstain 0%

(2) Systemic therapy in luminal type A chemoendocrine vs. endocrine

Q2-6-1. Is pT 1.8 cm, pN 0/12, PR+, Ki-67 2%, histologic grade 2, multigene assay necessary?

- 1. Yes 60.6%
- 2. No 36.4%
- 3. Abstain 3.0%

Q2-6-2. Is it necessary to receive F/53, pT 1.8 cm, pN 0/12, PR+, Ki-67 2%, histologic grade 2, postoperative chemotherapy?

- 1. Yes 46.9%
- 2. No 46.9%
- 3. Abstain 6.3%

Q2-6-3. Is it necessary to receive F/53, pT 1.8 cm, pN 0/12, PR-, Ki-67 2%, histologic grade 2, postoperative chemotherapy?

- 1. Yes 73.5%
- 2. No 26.5%
- 3. Abstain 0%

Q2-6-4. Is it necessary to receive F/53, pT 1.8 cm, pN 0/12, PR+, Ki-67 50%, histologic grade 2, postoperative chemotherapy?

- 1. Yes 93.9%
- 2. No 6.1%
- 3. Abstain 0%

Q2-6-5. Is it necessary to receive F/53, pT 1.8 cm, pN 0/12, PR+, Ki-67 2%, histologic grade 3, postoperative chemotherapy?

- 1. Yes 88.2%
- 2. No 8.8%
- 3. Abstain 2.9%

Q2-6-6. Is it necessary to receive F/53, pT 3.5 cm, pN 0/12, PR+, Ki-67 2%, histologic grade 2, postoperative chemotherapy?

- 1. Yes 89.7%
- 2. No 6.9%
- 3. Abstain 3.5%

Q2-6-7. Is it necessary to receive F/53, pT 1.8 cm, pN 1+/12 positive, PR+, Ki-67 2%, histologic grade 2, postoperative chemotherapy?

- 1. Yes 100%
- 2. No 0%
- 3. Abstain 0%

Session III

(1) Application of sonography in breast cancer surveillance

Q3-1. Had you used mammography alone in following up breast cancer patients according to the international guidelines (e.g., NCCN) until October 2013?

- 1. Yes 11.1%
- 2. No 86.1%
- 3. Abstain 2.8%

Q3-2. Had you used both mammography and breast US in following up breast cancer patients until October 2013?

- 1. Yes 77.8%
- 2. No 22.2%
- 3. Abstain 0%

Q3-3. Had you used mammography+breast US+breast MRI in following up breast cancer patients until October 2013?

- 1. Yes 13.5%
- 2. No 86.5%
- 3. Abstain 0%

Q3-4. Had you used breast US twice yearly in following up breast cancer patients (within 5 years postoperatively) until October 2013?

- 1. Yes 61.1%
- 2. No 38.9%
- 3. Abstain 0%

Q3-5. Insurance coverage for ultrasonography started in October 2013 (twice yearly). Do you think that this would affect your plan for radiological tests in following up breast cancer patients?

- 1. Yes 55.9%
- 2. No 44.1%
- 3. Abstain 0%

Q3-6. Do you plan to add breast MRI in following up breast cancer patients now?

- 1. Yes 23.5%
- 2. No 76.5%
- 3. Abstain 0%

Q3-7. Adjuvant therapy has been completed after breast cancer surgery. Ultrasonography is reportedly covered by insurance twice yearly in following up registered severe cancer patients. If breast ultrasonography is admitted service covered twice yearly, would you add abdominal ultrasonography as service not covered?

- 1. Yes 36.7%
- 2. No 60.0%
- 3. Abstain 3.3%

(2) New ISH guideline

Q3-8. IDC (0.8 cm, LN (-), HR (-), HER2 IHC (2+), Ki-67 80%) was found by biopsy after breast cancer surgery in a 40-year-old woman. Do you think the findings from HER2 FISH or SISH would affect a decision on adjuvant therapy for this patient?

- 1. Yes 93.1%
- 2. No 6.9%
- 3. Abstain 0%

Q3-9. IDC (1.5 cm, LN (-), HR (+), HER2 IHC (1+), Ki-67 80%) was found by biopsy after breast cancer surgery in a 40-year-old woman. Do you think the findings from HER2 FISH or SISH would affect a decision on adjuvant therapy

for this patient?

- | | |
|------------|-------|
| 1. Yes | 25.0% |
| 2. No | 71.4% |
| 3. Abstain | 3.6% |

Q3-10. IDC (1.5 cm, LN (-), HR (-), HER2 IHC (1+), Ki-67 5%) was found by biopsy after breast cancer surgery in a 40-year-old woman. Do you think the findings from HER2 FISH or SISH would affect a decision on adjuvant therapy for this patient?

- | | |
|------------|-------|
| 1. Yes | 42.9% |
| 2. No | 57.1% |
| 3. Abstain | 0% |

Thank you

Do you think the consensus based on the results of today's voting would affect your medical practice later?

- | | |
|------------|-------|
| 1. Yes | 87.1% |
| 2. No | 2.9% |
| 3. Abstain | 0% |